

Patent Claims

1. Method for the determination of the presence and/or amount of the protein LASP-1 (SEQ ID NO:1) or of a protein which is at least substantially identical in sequence to it, at least in the range of the first 200 amino acids, or of an immunoreactive fragment of such a protein, in free and/or protein-bound form or posttranslationally modified form in a biological fluid of a patient for purposes of medical diagnosis.
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2. Method according to Claim 1, characterized in that it is carried out for early diagnosis and diagnosis, for prognosis and assessment of the severity and therapy-accompanying monitoring of inflammatory diseases and infections, in particular sepsis-like systemic infections, and conclusions are drawn with respect to the presence, the expected course, the severity or the success of a therapy of the inflammatory disease or of the infection from the presence and/or amount of the LASP-1 immunoreactivity determined.
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3. Method for early diagnosis and diagnosis, for prognosis and assessment of the severity and for therapy-accompanying monitoring of inflammatory diseases and infections, in particular sepsis-like systemic infections, characterized in that the presence and/or amount of the protein LASP-1 (SEQ ID NO:1) or of a protein which is at least substantially identical in sequence with it, at least in the range of the first 200 amino acids,
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or of an immunoreactive fragment of such a protein, in free and/or protein-bound form in a tissue sample of a patient are determined, and conclusions are drawn with respect to the presence, the expected course, the severity or the success of a therapy of the inflammatory disease or of the infection from the presence and/or amount of the proteins determined.

10 4. Method according to Claim 1, 2 or 3, characterized in that the immunoreactivity of a protein or of a fragment thereof which is referred to as LAP-1 and has the amino acid sequence according to SEQ ID NO:16 is determined or codetermined in the assay.

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5. Method according to any of Claims 1 to 4, characterized in that an immunoreactivity which can be assigned to positions 147 to 187 of LASP-1 (SEQ ID NO:1) is determined in the assay.

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6. Method according to any of Claims 1 to 5, characterized in that the immunoreactivity of a posttranslationally formed soluble form of LASP-1 and/or LAP-1 is determined.

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7. Method according to any of Claims 1, 2 or 4 to 6, characterized in that the biological fluid is blood, a blood fraction or liquor.

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8. Method according to any of Claims 1 to 7, characterized in that it is an immunodiagnostic assay method (immunoassay) of the sandwich type.

9. Method according to any of Claims 1 to 8, characterized in that use is made of an immunodiagnostic assay method employing antibody reagents which were produced by immunization with a peptide which is conjugated with a carrier protein and is selected from peptides having the amino acid sequences according to SEQ ID NO:13, SEQ ID NO:14 or SEQ ID NO:17.

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10 10. Method according to any of Claims 1 to 9, characterized in that the inflammatory disease is an inflammatory disease of the brain, in particular Alzheimer's disease.

15 11. Method according to any of Claims 1 to 9, characterized in that the disease is a cardiac disease, in particular cardiac infarction, a disease of the central nervous system or cancer.

20 12. Method according to any of Claims 1 to 11, characterized in that it is carried out as part of a multiparameter determination, in which at least one further disease-relevant parameter is simultaneously determined and in which a measured result in the form of a set of at least two measured quantities is obtained and is evaluated for the fine diagnosis of the inflammation or infection.

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30 13. Method according to Claim 12, characterized in that it is a method for sepsis diagnosis and, as part of the multiparameter determination, in addition to LASP-1, at least one further parameter

is determined which is selected from the group consisting of procalcitonin, CA 125, CA 19-9, S100B, S100A proteins, soluble cytokeratin fragments, in particular CYFRA 21, TPS and/or soluble cytokeratin-1 fragments (sCY1F), the peptides inflammin and CHP, peptide prohormones, glycine N-acyltransferase (GNAT), carbamoyl phosphate synthetase 1 (CPS 1) and the C-reactive protein (CRP) or fragments thereof.

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14. Method according to Claim 12 or 13, characterized in that the multiparameter determination is carried out as a simultaneous determination by means of a chip technology measuring apparatus or of an immunochromatographic measuring apparatus.

15. Method according to Claim 14, characterized in that the evaluation of the complex measured result obtained using the measuring apparatus is effected with the aid of a computer program.

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25 16. Method according to any of Claims 1 to 4, characterized in that a determination of LASP-1 and LAP-1 is carried out in such a way that both are determined together.

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35 17. Method according to any of Claims 1 to 4, characterized in that the determination of LASP-1 and/or LAP-1 is carried out in such a way that measured values which are characteristic of the presence and/or amounts of only LASP-1 and/or of only LAP-1 are obtained.

18. Use of LASP-1, LAP-1 and/or partial peptides thereof, or of specific binding partners or agonists or antagonists of these peptides, for the preparation of medicaments for therapeutically influencing inflammations and infections, in particular sepsis, Alzheimer's disease and cardiovascular diseases.